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Organization and Management Problems of Cooperative Strawberry Marketing Associations in Kentucky.

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BULLETIN NO. 319

Organization and Management Problems of Cooperative Strawberry Marketing Associations in Kentucky.

By C. D. PHILLIPS and D. G. CARD

The commercial strawberry crop of Kentucky is marketed almost wholly thru local cooperative organizations. Since the production of strawberries began as a community enterprise in the first producing section, the cooperative organization has been considered the proper means for marketing. Moreover, there are important functions for local marketing agencies as berries are grown in comparatively small patches, and as it is necessary to combine the berries of several growers for economical refrigeration and transportation. The first organizations were so successful that other communities that began production later adopted the same method of marketing.

The first cooperative marketing association, the Warren County Strawberry Growers' Association, was organized at Bowling Green in 1908.[1] As the industry developed, similar associations were organized in other localities. At least fifteen marketing associations have been organized since the beginning of commercial strawberry growing in Kentucky. Some associations were formed in territories where the industry did not develop sufficiently to maintain an organization. In others dissatisfaction arose within the organization and some of the growers broke away to form new associations. In one case, three of these small associations were combined for the purpose of securing greater efficiency of operation. As the result of these

[1] For discussions of the development of the strawberry industry and of strawberry cooperatives in Kentucky see Ky. Exp. Sta. Bul. 255, "Strawberries and Farm Profits in Western Kentucky"; Bul. 246, "The Marketing of Kentucky Strawberries"; and Ky. Ext. Cir. 104, "The Market Outlook for Kentucky Strawberries", 1927.

various changes, there were only ten cooperative organizations marketing Kentucky strawberries in 1929.

Other factors, as management and efficiency of individual associations, have also contributed to the reorganization that took place in the strawberry associations. For instance, dispatch and refrigeration are two essentials in the marketing of perishables; also excessive costs must be avoided in marketing if producers are to receive the highest possible returns for their products. A downward trend in strawberry prices since 1925, has resulted in a marked decrease in the acreage grown in Kentucky; consequently, some of the associations with but half to two-thirds of the volume of berries which they formerly had to market, have found it extremely difficult to keep down unit costs of operation. Altho in 1929, the ten associations then operating ranged in volume marketed from 10 to 372 carloads, yet many items of expense did not vary proportionately.

The purpose of this study is to discuss the factors that affect the efficiency of operation of cooperative strawberry marketing associations and to indicate how returns to growers may be increased by such organizations.

FORM OF ORGANIZATION

Most of the cooperative strawberry marketing associations in Kentucky were organized before the Bingham Cooperative Marketing Act became a law; consequently nearly all associations are incorporated under the general corporation laws of the State. Of the ten associations, seven are incorporated under the general corporation law, one is incorporated under the Bingham Cooperative law and two are unincorporated. In all incorporated associations, with the exception of one in which the corporation is non-stock, provision has been made for the cooperative features of one-man-one-vote and patronage dividends. As the charters of the older associations granted under the general corporation law expire, new charters probably will be secured in accordance with the Bingham Cooperative Marketing Act. One such organization already has been effected, with all the privileges provided for by the cooperative marketing law.

Among these privileges is the greater assurance that the organization is formed in accordance with the principles of cooperation and that its business is conducted according to proper practice and legal procedure.

Altho it is not essential that a cooperative marketing association be incorporated, there are several advantages to incorporation. An unincorporated association does not have the same legal protection which a corporation enjoys. Since its officers and members assume liability, the organization itself cannot sue or be sued. Thus, if the necessity arose of taking a claim to court, it is probable that collection would be more difficult for an unincorporated association.

The incorporation of an association is desirable because of these advantages: the matter of limited liability of members, the permanence of the enterprise, the power to enter into contracts, to hold property, and to exercise similar rights. The liability of the members for the debts of a corporation usually is limited definitely, whereas, the liability of members of an unincorporated association or partnership is not, for any member of an unincorporated association is legally liable for any or all of the debts incurred by the association, while members of an incorporated association are responsible only to the extent of their stock holdings or membership fees. Therefore, it seems desirable, when incorporation is contemplated for farmers' marketing associations, to organize under the cooperative marketing law.

COSTS OF OPERATION AND FACTORS AFFECTING COSTS

Many expenses are incurred in the operation of a cooperative strawberry marketing association and many factors cause variations in costs. The following items of expense are common to nearly all associations: manager's salary, inspector's salary, labor for loading strawberries, office labor used in keeping the records, telephone and telegraph expenses incurred in keeping in touch with the markets and in selling berries, lumber used in bracing the shipments, detention and re-icing, office

expenses, including postage, stationery, car slips, and various miscellaneous expenses. (See Table 1.)

TABLE 1. High, Low and Average Expenses Per Car for 11[2] Associations in 1929.
(420 Crates Per Car.)

Expense	Low	High	Average	Percent of Total Average
Manager's Compensation	$7.23	$41.64	$18.95	36.4%
Overhead Expenses[3]	.32	13.61	3.33	6.4
General Labor	2.52	11.22	4.49	8.6
Inspection[3]	1.45	11.57	4.09	7.9
Office Labor[3]	2.07	37.59	6.76	13.0
Office Expenses[3]	.17	7.02	1.75	3.4
Bracing Material	2.03	9.69	4.55	8.8
Telephone and Telegraph	.32	6.31	2.48	4.8
Detention, Demurrage and Re-icing[3]	.46	4.92	1.73	3.3
Miscellaneous[3]	.35	12.60	3.52	6.8
Building Charges	.48	3.21	.62	1.2
Total Expenses	$23.65	$128.58	$52.00[4]	100.6[4]

[2] The Kentucky Associations and one located nearby in Tennessee, each of which handled Aroma strawberries, have been included in this study.
[3] Expense of this item not obtained separately from some associations.
[4] Because of a small unaccounted for expense in one association and the method used in figuring the average cost of bracing material, the average total expense does not check exactly with the total of the individual items.

Labor costs constitute the largest share of the expenditures of an association. Manager's compensation was by far the largest cost and accounted for 36.4 percent of all money spent by associations in 1929 when this study was made. Office labor was the next largest item of expense and accounted for 13 percent of expenditures. Unskilled labor for loading cars, 8.6 percent, and inspection, 7.9 percent, were the other two items that completed the labor cost. These various types of labor accounted for 65.9 percent of all expenditures of associations. Labor requirements vary among associations and depend largely

upon the methods of receiving and loading strawberries. The other expenditures and their relative importance are as

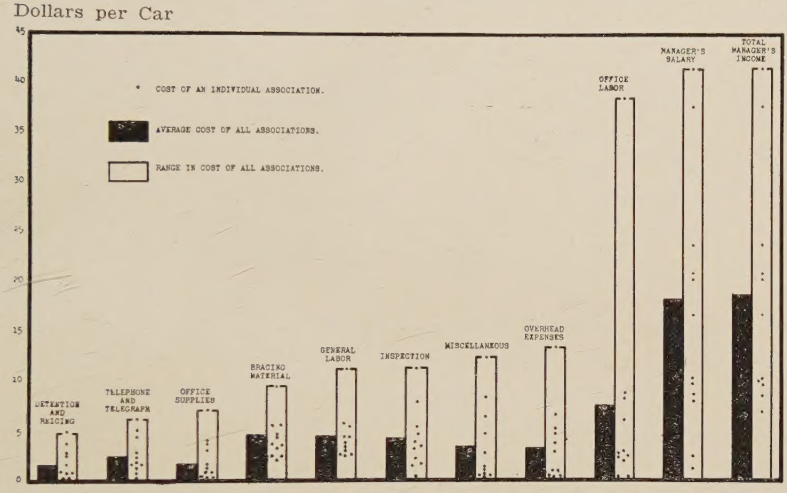

Figure 1. Relative position of associations with reference to various items of expense.

follows: telephone and telegraph 4.8 percent, bracing material 8.8 percent, detention and re-icing 3.3 percent, office expense 3.4 percent, overhead expenses 6.4 percent, and miscellaneous expenses 6.8 percent. Variations in costs are plainly shown in Figure 1. Some of the reasons for these variations are discussed in the following sections.

Manager's Compensation.

Manager's compensation consists of salary and income derived from the handling of crates and plants, customary sidelines of cooperative strawberry marketing associations in Kentucky. Only the salary of managers would ordinarily be included in discussions of this cost of marketing strawberries, as the income from other sources is obviously a cost incurred in handling sidelines. In this study, however, it has been necessary to combine the two items since only five associations follow the generally accepted practice of good accounting procedure and distinguish between manager's compensation for marketing

strawberries and the part of cost of management that was incurred by the sideline business. The remaining associations paid a salary which compensated the manager for attending to both strawberries and sidelines. As the compensation for handling plants and crates only amounted to approximately 15 percent of the total compensation of managers, this method of dealing with this item of expense did not seriously interfere with the analysis of cost of management.

The compensation of managers varied from $7.23 to $41.64 per car[5] with an average for the eleven associations of $18.95. One of the causes of this wide variation was the volume of business. A small volume was the most important cause of the highest cost, and there was a pronounced tendency for this cost to decrease as volume increased. However, because of other factors affecting costs, associations shipping the largest volume did not secure managers for the lowest cost per car. Another cause of variation in cost of management was the method of paying managers. There were three methods which varied somewhat in detail among associations. Managers were either paid a percent of the total net income of the association, a flat rate per crate of berries shipped, or a specified salary. All of these methods have their advantages and disadvantages. The first, however, appears to be preferable for most associations.

There are several advantages in paying a manager a percentage of net returns, but probably the chief advantage is that it furnishes him an incentive to secure the highest possible price for berries, so that he is not willing to reduce prices in order to complete a sale. Doubtless, a manager also supervises the packing and inspection of berries more carefully in order to secure a high quality product which commands good prices when he shares these higher prices with producers. Finally the salary probably remains more constant from year to year than when based on a flat rate as volume usually varies in an inverse ratio to price.

Perhaps the chief criticisms of this method are: first, the high cost of management per unit of product marketed which

[5] The term "car" as used in this bulletin refers to a car of 420 crates of 24 quarts each.

small associations incur, and second, the failure of associations to adjust the rate of pay as an association grows. These objections may be overcome, however, by graduating the rate of salary as the volume of business varies.

The method of paying managers on the basis of a flat rate per crate furnishes an incentive to secure a large volume but it does not directly promote an effort on the part of the manager to sell at high prices. Moreover, in an effort to secure volume, the manager may lower the standards of inspection, thus permitting a lowering of quality, and he may also continue to ship fruit at the close of a season altho prices do not warrant shipping.

The payment of a stipulated salary has the advantage of fixing the exact amount of this expense in advance of the marketing season. On the other hand, it furnishes no direct incentive to reduce costs, to maintain quality, or to sell for the highest possible price. Under conditions of decreasing production and declining volume, such as have been witnessed in strawberry sections of the state in recent years, higher unit costs of marketing have resulted because salaries, once established, are not easily reduced. Generally speaking, then, this method of payment does not appear to be as satisfactory as either of the other two mentioned.

Several cooperative associations considered in this study pay managers an additional amount, arranged for in advance and included in the salary payment, to defray certain expenses of their associations. This is an unusual arrangement among cooperative associations marketing other farm products but it has been adopted by strawberry associations in order to promote economy of operation. These associations have many small expenses, as previously mentioned, and it is important to provide incentives for management to watch all costs carefully. The weakness of this arrangement is that costs may be reduced more than is consistent with efficient handling and sale of strawberries. For example, rather than incur detention or demurrage charges, which must be paid by the manager, only partially filled refrigerator cars may be shipped, thus increasing freight

costs to growers. Or the use of low grade or insufficient bracing material, may lower the cost of bracing crates in cars but increase the risk of deterioration in quality of fruit. Again, economy measures in the use of the telephone and telegraph may easily be carried to the point where they impair the efficiency of selling strawberries. In order to avoid such results, there is a tendency for associations to pay telephone, telegraph, detention, demurrage and re-icing costs and for the manager to pay all other expenses, excepting freight and selling commissions, out of his compensation. The item of "manager's compensation" as used in Table 1, however, includes only the amounts received by managers in excess of costs of operation paid by them.

Overhead Expenses.

Overhead expenses include such items as director's fees, advertising, taxes, insurance, interest, bonds for manager, brokerage, and use of the Red Book or Blue Book.[6] The records of many associations did not show expenditures for each of the items. None of them were included in the statement of expenses of some associations. In such cases it was necessary to obtain supplementary information to determine the amount of the various items. These expenses varied from $.32 to $13.61 per car and averaged $3.33 for the eleven associations. This large variation was chiefly due to the difference in the number of expenses of individual associations, altho variation in the amount paid for the various services was also a factor. For example, only three of the associations paid directors' fees, only two associations required bond for the manager, and only three used the Red Book or Blue Book. Undoubtedly, there is some merit in omitting an occasional expense of this type but there is also danger of practicing false economy. For example, the directors may participate more actively in management if they receive some compensation; again, greater assurance is given that the dealings of the manager will be honest and above suspicion if he is under bond; while the use of the Red Book reduces the risk of unfair practices of buyers altho it does not,

[6] A book giving the business rating of the commission firms all over the country, and valuable in that it makes possible the separation of reliable buyers from those who do not have a good business reputation.

of course, assure fair and honest treatment in all cases. Some associations, therefore, would profit by incurring larger expenditures for some of these items. On the other hand, more money is occasionally spent than is necessary for efficient operation. One association, for example, paid a broker over $700.00 for selling strawberries, in addition to the amount paid the manager for the same purpose; another association paid a broker $25.00 per car, the customary brokerage fee, on several consignments which were sold by the broker and for which he was also paid the regular commission selling charges. Another association paid each of its directors $25.00 per year and only required two meetings during that time. The efficiency of an association is in most instances not substantially affected by any one of these cost items, altho the manner in which they are handled in the aggregate may have an important relation to total costs.

General Labor.

The costs of labor used in receiving and loading strawberries showed considerable variation, the low cost being only $2.52 per car, the high cost was $11.22, and the average for eleven associations $4.49. One of the chief causes of variation in this cost was the difference in rates paid for labor. In markets where labor was relatively abundant, sufficient help was secured at 25c per hour, while at other points it was necessary to pay 35c. Some of this variation was also due to the method of hiring labor. Labor requirements often showed extreme variations; on days of large receipts employment by the day was most economical, while payment by the hour was best suited to days of small volume. Perhaps a combination of the two methods with full time employment for a part of the labor force and employment by the hour for extra helpers would be most suitable.

Some variation in labor costs was also caused by the method of receiving and loading strawberries. Associations using loading platforms required more labor to load than associations loading directly into the car, altho the higher cost of loading over a platform may have been partially offset by lower inspection costs. Some associations also found it necessary to hire traffic men to keep farmers in their proper places in the receiv-

ing line during periods of large deliveries. If a loading platform has been provided, and if members will not agree to avoid confusion in traffic at the points of delivery, these variations in labor costs cannot be controlled by the manager.

Strawberry inspectors are selected for their ability to judge quality. Consequently, they receive higher wages than general labor. The most common arrangement is to hire inspectors for the season at a stipulated rate of $5.00 per day altho a flat rate of $125.00 to $150.00 for a season's work is paid by two associations; occasionally inspectors are hired on a daily basis. Inspection costs varied from $1.45 per car to $11.57, with an average of $4.09. Generally speaking, the smaller the association, the higher the cost, altho local conditions have an important influence on this. If an association receives and grades berries at more than one point, it is necessary to have inspectors located at each place and unless the volume at all places is sufficiently large to keep an inspector busy, inspection costs are necessarily higher. Again, the policy of employing extra graders for the periods of large receipts is an important factor in costs. If the manager grades at such times the cost per unit is lower than when additional graders are engaged. This practice is undoubtedly one of the principal reasons for variation in inspection costs.

Perhaps an inspector has more direct contacts with members than any other official of an association. For this reason it is essential that he be a person who understands cooperative marketing and who can aid members in solving their problems. He must have tact and determination in dealing with farmers, for he will frequently be asked to make decisions where the interests of an individual member and of the cooperative organization conflict. In such cases he must be able to explain his decision in a manner that will not create misunderstanding. He must also be able to work rapidly and frequently for long hours when berries are being delivered in quantity. It is not easy to secure inspectors with these qualifications but they should be employed if possible as the success of a cooperative strawberry marketing association depends largely on its reputation for the quality of

fruit sold and on the attitude of members toward the organization.

Office Labor.

The amount of expense incurred for office labor is dependent largely upon the type of records kept. If a record is kept only of receipts and expenditures for the personal information of the manager, as is often the case when the manager is paid a certain amount from which he pays all expenses, the cost is low. On the other hand, the cost of bookkeeping is materially increased when a complete set of books and records is kept from year to year. Altho the latter policy is more expensive, it is preferable to a less costly system as it not only furnishes the manager and members a complete record of the year's business, thus enabling them to handle questions that arise regarding the business, but it also provides information that is valuable from the sales standpoint.

Office labor costs varied from $2.07 to $37.59 per car and averaged $6.76. The extremely high cost was incurred by an association which employed a secretary and bookkeeper at an annual salary. This arrangement was satisfactory when the association had a large volume of business but when volume declined and no reduction was made in the salary of these employees, the cost of this item became extraordinarily high.

Office Expenses.

Office expense includes costs of car slips, stationery, postage, auditor's report, printing and office rent. Because of the inadequate records kept by some associations, it was difficult to get a complete and accurate record of this group of expenses and, as some of the associations classed such expenses under miscellaneous, the following discussion is based only on the records of associations which had complete information.

The principal reason for difference in this class of costs was the fact that some associations did not incur certain items of expense. Audits, altho desirable from the standpoint of informing both the management and members about the business, were frequently dispensed with. Occasionally, an association

expected members to call at the office for their statements and checks whereas others incurred the expense of mailing them. There were also substantial variations in the amount of office space as well as the rates paid for space, differences in the kind of car slips and their costs, and the like. In view of these variations in practices and policies, it is therefore not surprising that the records for 1929 show the large variation of from 17 cents to $7.02 per car among the 11 associations.

Bracing Material.

The cost of bracing material per car averaged $4.55 and, with one exception, all associations fell within the range of $2.03 to $5.52. Refrigerator cars were generally braced in about the same manner by all associations altho there was some variation in the kind and quantity of lumber used. Some associations used oak lumber instead of pine; others used heavier lumber and large quantities of it. It was observed that cars were occasionally braced with lumber with dimensions of two by four inches the width of the car and one by four inches from top to bottom of the car, while in others the upright braces were also two by four inches. In contrast to these good methods of bracing, other associations used second grade lumber or lighter materials. Costs were thus reduced but it is doubtful whether the practice was always good economy as the lower costs were occasionally more than offset by damage incurred in shipping. Crates of fruit require good bracing to avoid breakage of crates and injury to strawberries while in transit. Better lumber was obtained by several associations by purchasing in large quantities at a saving, which more than offset the interest on the money invested in surplus lumber carried over into the following season.

Telephone and Telegraph.

It is necessary to use telephonic and telegraphic service very extensively during a shipping season in order to keep in touch with buyers and market conditions. The amount of the service required is also relatively large whether an association sells few or many carloads of berries, except where the volume of business is large enough to attract buyers to the local markets,

thus eliminating a considerable part of communication cost. Volume is, therefore, an important factor affecting this cost and, generally speaking, the cost per unit decreases as volume increases.

This cost also depends to a considerable extent on the reputation of the association among dealers, the contacts which have been built up year after year in the central markets, and the method of keeping in touch with central markets. Some associations maintain a telephone the entire year altho it is needed only for a part of the year. Other associations, where the manager provides his own office, frequently have a telephone without cost to the association except for long distance calls. Again, associations sometimes use three or four telephones during the season and the cost of installation is consequently high. Some managers also use long distance telephone service more than others and also more than they use the cheaper telegraph service. This cost varied from $.32 to $6.31 per car with the cost of individual associations rather evenly distributed within this range.

Detention, Demurrage and Re-icing.

Anticipation of the daily shipping needs of a cooperative strawberry marketing association is no easy task and managers do not handle this problem equally well. As railroad companies usually require from four to twelve hours notice, varying with local conditions, in order to furnish iced refrigerator cars, and as they frequently deliver refrigerator cars only once daily at Kentucky strawberry shipping points, the manager must anticipate his shipping requirements well in advance. A shortage of shipping space may cause considerable delay in getting fruit to market, with resulting deterioration, while a surplus of cars increases the probability of charges for detention, demurrage[7] and re-icing.[8]

[7] "DEMURRAGE: A charge made on cars or vessels held by or for consignor or consignee for loading or unloading, for forwarding directions or for any other purpose." (Ruling of the Interstate Commerce Commission.)

[8] Detention begins 24 hours after the car is placed for loading and demurrage begins 48 hours afterwards. Re-icing costs arise when it is necessary to move a car for this purpose. No charge, however, is made for the ice.

Another aspect of this problem is the handling of berries received in less than carload lots. The problem is comparatively simple if the weather is favorable and an association has a warehouse, but as most associations do not have warehouses, and sufficiently low temperatures can not be depended upon for storing without deterioration in warehouses having no artificial refrigeration, managers frequently resort to railroad refrigerator cars for temporary storage. In such cases the problem is to decide whether it is more economical to stand the cost of demurrage and detention plus the loss from any possible deterioration of the fruit, due to delay in shipping, or whether it would be cheaper to pay the additional freight cost per crate of berries for shipping in less than full cars.

In view of the above factors affecting the cost of detention, demurrage and re-icing and the differences in policies followed, there is a wide range in the amount of this cost item. Cost varied from $.46 to $4.92 per car with an average for the eleven associations of $1.73. The highest cost was the direct result of consistently ordering an over supply of cars, an item which could have been lowered by a more careful study of railroad schedules made with a view to discovering the possibility of obtaining cars at a more convenient time or of securing more than one delivery of cars per day.

Miscellaneous.

Miscellaneous expenses include a wide range of small items which individually amount to very little, but in some cases, when taken in the aggregate, amount to a considerable sum. As the bookkeeping was not sufficiently detailed in some cases to permit a detailed classification of expenses, a miscellaneous class was included to take care of certain items. This group of expenses, which averaged $3.52 and ranged from $.35 to $12.60 per car, included such items as, some of the office expenses, nails, printing of labels, pickers' tickets, yard rent, light bulbs, drayage, rent for storage of crates, etc. The variations on the number of items included, accounts for most of the difference in unit costs shown by different associations.

Building Costs.

Four associations own buildings which either provide office space or storage capacity, or both, and one association owns a loading platform. Three associations have the use of loading platforms which are provided by a railroad company, the town in which the association is located or other interested parties.

The annual cost of buildings and loading platforms includes taxes, insurance, depreciation, upkeep, and interest on investment. Owing to the various designs, sizes, types of building materials, and location, it was impossible to obtain sufficiently detailed information to determine the cost of this part of the business for most of the associations that owned buildings. Sufficient data were obtained, however, to show first that volume of business has an important effect on this element of cost, large volume tending to be associated with low unit costs, and second that there is a tendency among strawberry growers, as among producers of other farm products who associate for cooperative marketing, to provide more building than is necessary for efficient operation. Moreover, it is a rather general practice to ignore the annual costs of building, to place the full cost of the building on the members who patronize the association during the year of purchase, and to make no provision for replacing the structure through an annual charge of depreciation. As the investment in buildings is generally small, the inequities growing out of this method of dealing with costs are likely to be small. Nevertheless, good accounting procedure which provides for reserves for depreciation and annual interest charges on fixed investments would assure a better distribution of the cost among members and would provide for the replacement of facilities when they are worn out or obsolete.

Data were insufficient to permit a definite decision as to whether it is preferable to own an office or to rent office space when needed. Renting generally has the advantage of being less expensive, particularly as the space is used only for a short period each year and as temporary office and storage space can often be secured at reasonable rates. Ownership, on the other hand, is likely to provide buildings that are more comfortable

and more suitable for keeping permanent records, holding meetings and otherwise conducting the business. Frequently buildings can be purchased at very reasonable prices. Experience shows, however, that when buying a building that has been constructed for some other purpose that careful consideration should be given to the building needs of the association lest expensive alterations be incurred or the building be abandoned because of unsuitability as has happened in at least one instance.

The value of a loading platform, in comparison with loading directly into railroad cars has been disputed. Managers using a platform realize that it takes extra labor to load strawberries by this method but they believe that it facilitates inspection and checking sufficiently to more than offset the extra labor costs. On the other hand, managers who load directly into cars do not feel that the extra labor cost is justified and consequently prefer the direct method. Again, a platform makes loading much easier in inclement weather and if enclosed with a roof, furnishes protection to both men and berries. As most of the loading platforms now in use have been furnished without cost to associations either by the railroads, towns in which they are located, or other interested parties, it would appear unnecessary, ordinarily, for an association to build one of its own.

Total Costs.

Total costs of operating the 11 cooperative strawberry marketing associations in 1929 ranged from $23.65 to $128.58 per car and averaged $52.00.

Two important conclusions can be drawn from a study of these costs. In the first place, volume of business, altho a less important factor than for many other types of cooperative associations, affects the cost of operation substantially. The data indicate, for example, that increased volume up to 100 to 150 cars per season is accompanied by lower unit costs. Variations in larger volume do not indicate so clearly an advantage for a bigger turnover in business. This relationship can probably be explained by the very small and, in some instances absence of, investment in plant or equipment, and by the fact that the total costs vary rather directly with volume of strawberries handled.

The least variable of these cost items are the manager's salary, market news service, and inspection. Obviously, better utilization can be made of these and other cost elements by large than

TABLE 2. Relation of Volume to Total Costs Per Car of Operating 11 Cooperative Strawberry Marketing Associations.

Association	Rank in Volume	Rank in Cost
A	1	5
B	2	4
C	3	1
D	4	6
E	5	7
F	6	3
G	7	8
H	8	2
I	9	10
J	10	9
K	11	11

by small volume and 150 cars per season appears, from available data, to give maximum utilization. This statement should not be misunderstood to mean that associations with a larger volume may not be able to operate more efficiently because of the larger size. There may be advantages in selling, for example. But the data should be interpreted as pointing out the desirability of so arranging production and marketing by farmers that any association may market not less than this apparently optimum amount of 100 to 150 carloads per season.

The second deduction that may be drawn from this analysis is the relatively large number of small items of expense which are included. Attention to the details of organization and operation by the management is, therefore, a very important factor affecting total costs. This conclusion is well illustrated by two associations which are among the smallest organizations included in this study but whose costs are among the lowest. (See Table 2.) The managements of these associations were

able to operate efficiently only by reducing a small cost here or by eliminating an expense item there.

ASSOCIATION INCOME

Cooperative strawberry marketing associations generally receive some income from miscellaneous sources such as membership fees, rent on buildings, the sale of crates, etc. Altho income from these sources amounted to about $2,500 for one association in 1929, miscellaneous income for the other associations varied from nothing up to $300.

Funds secured from these sources usually are applied to association expenses and serve to reduce the necessary charges for marketing strawberries. Income, such as rent on buildings and sale of crates, results in a saving to growers. Income from membership fees and annual dues, on the other hand, is intended to care for the expenses incidental to membership in an association. This income, therefore, varies in direct relation to numbers of growers rather than in relation to volume of strawberries marketed.

SIDE LINES

The purchase of supplies, chiefly crates and plants, through their strawberry marketing associations has enabled members to effect savings in the purchase of materials required for producing and marketing strawberries. Moreover, by broadening the scope of the manager's duties, associations have been able to pay higher wages, thus enabling them to secure better managers.

Good accounting practice among cooperative associations permits the allocation of costs of management, labor, financing and other costs incidental to the handling of sidelines. This enables an association to discover whether or not sidelines are profitable enterprises. Only five of the associations in Kentucky kept records sufficiently complete to enable the allocation of costs of handling sidelines from other costs of operation. This part of the analysis is therefore incomplete.

Manager's salary is the principal cost of the sideline business. As the common practice is to include the work connected

with sidelines along with the handling of strawberries when hiring the manager no satisfactory basis was discovered to determine the part of the salary that should be charged to sidelines for most associations. Four associations, however, made separate agreements with managers for the handling of crates and plants. In one case, the manager was paid 2.5 cents for each crate purchased for members. In two other cases the manager was given the privilege of buying the crates and reselling them to members. By paying cash for the crates, he was able to secure a discount which he was allowed to keep and which compensated him both for his labor and the use of his money. In still another instance, the manager purchased plants for members and added his commission of 25 cents per thousand to the price of plants.

Crates were received by all associations in March or April except the two located in the same town with crate factories The crates were unloaded from the railroad cars and either delivered to farmers or trucked to warehouses for storage until delivery was made. Only one association made an additional charge for trucking and storing crates. Other associations charged the labor of unloading, trucking and storing to general operating expenses. This practice penalized those who called for crates at the time the association received them.

Purchase of crates was made by various methods. Usually the manager, with the advice and consent of the board of directors, contracted for the year's supply well in advance of the strawberry marketing season. The contract, in most instances, was signed by the manager as the representative of the association and the president was also often required to sign it. As crates were bought before the marketing season, an association had to anticipate its requirements well, as a shortage of crates in any season was a handicap to growers, while a surplus of crates involved a serious problem of finance.

Two methods of financing the carryover of crates were used. Three associations paid for the crates from the general fund of the association, or by borrowing the necessary capital. The cost of carrying the crates was then charged to general expenses of

the following year. The other method, used by one association, was to charge 10 percent of the value of the crate for carrying charges. Capital to finance storing was secured at one of the local banks. This method, altho it made some of the crates cost more the following year had the advantage of making the crate business stand the expense of storage from one year to the next.

Managers who took orders for plants generally paid for them either out of general funds of the association or borrowed the necessary funds from local banks. In either case, no additional charges were made to the members for this service but all costs of handling plants were added to the general operating expenses of an association. As the cost of this service was small no serious injustice was done to strawberry growers who did not purchase plants. Nevertheless, there would have been less opportunity for criticism of the management among members, and it would have been a more business-like practice, if each service rendered by cooperative associations had been made to bear at least the direct costs incurred by it.

MEETING MARKET REQUIREMENTS

Standardization of quality and method of preparation for market are important considerations in strawberry marketing. Indifferent packs and poor quality fruit cause wide differentials in prices and lower the price level.

Marketing associations handled these problems by several methods and with varying degrees of success. It was a common practice to send members written instructions just prior to the harvesting season in order to encourage better sorting of berries and to standardize the method of preparing them for market. Other associations supplemented this effort by holding packing demonstrations in the field, or at the points of delivery on the loading platforms. In all instances inspection was also provided and the fruit was graded when it was delivered to an association.

Plating the baskets of fruit was also practiced in order to improve the appearance of fruit and thus to enhance its value. This practice was apparently desirable and resulted in higher prices. About 90 percent of a large number of dealers who

have had experience with Kentucky grown strawberries and who were questioned on this point replied that they found it easier to sell berries that had been plated and that fruit of high quality, when plated, ordinarily sold for 50 cents to $1.00 per crate more than when unplated. At the same time these dealers emphasized the importance of uniformity of pack when plating is practiced in order that there may be no element of deception. They further suggested, almost without exception, that plating of only the top tier of baskets in crates, occasionally practiced by some shippers, was of little value, as the sense of deception that accompanied such a pack made sale more difficult than for crates either completely plated or in a jumble condition. A final answer to the question of how to prepare strawberries for market cannot be made of course until further analysis is made of the price and handling aspects of the problem. Nevertheless, these opinions of fruit dealers are significant as the method by which strawberries or other fruit is prepared for market must, in large part, be determined by the attitudes of the wholesale and retail trades.

Available information indicates that strawberry marketing associations are making progress in handling these problems altho with varying degrees of success. Three dealers out of every four with whom strawberry marketing was discussed were of the opinion that Kentucky strawberries were reasonably uniform in quality and well prepared for market. The other dealers were inclined to be critical of marketing methods and to insist that insufficient progress is being made to standardize and to improve quality. Illustrations were cited of shipments which contained strawberries with quality below sale specifications and which indicated either lack of cooperation of growers in preparing berries for market or inefficient shipping point inspection. Such instances are, of course, difficult to avoid in the best marketing systems, and their avoidance is particularly difficult for a highly perishable and poorly standardized product like strawberries, which is prepared for market by farmers who are generally not specializing in the production of strawberries. It must be expected, therefore, that improvement in the quality

of marketable fruit, altho very desirable, can only be brought about slowly and only as strawberry growers and shippers have a better understanding of market requirements and as growers and managers of cooperative associations are willing to co-operate and to promote practices of production and marketing which will better adapt the product to consumer and trade demand.

INSPECTION

Inspection has been provided for by every cooperative association in Kentucky and it has almost invariably been under the control of cooperative associations, each association employing its inspectors and establishing the specifications for its own grades. This system of grading has worked well considering the handicaps under which it has operated; the majority of dealers in the central markets reported that they prefer to buy strawberries accompanied by inspection certificates. Heretofore, the grading has served as a basis for educational work among strawberry growers; yet it has all the weaknesses of non-uniformity and unreliability usually inherent in a private inspection system.

Sentiment is growing among farmers and dealers for official inspection and an occasional cooperative association is experimenting with the strawberry inspection service offered by the United States Department of Agriculture.[9] Several factors contribute, however, to the slow introduction of this official service. Farmers and managers of shipping associations are frequently reluctant to relinquish the control which they now exercise over this important marketing function. As strawberries are generally examined more carefully by official inspectors, farmers complain that more time is required to deliver fruit to the association. The cost of official inspection is also higher in some instances. And finally, objection is occasionally made to the uniform standards of grading maintained for a whole season, or for several seasons, the contention being that it is preferable to adapt the grading to the condition of a crop.

[9] Generally offered in cooperation with a state agency.

In contrast to these disadvantages of official inspection, there are two important advantages. First, official inspection generally provides more uniform grading. Grade specifications once established tend to be maintained until some market factor or new technique in grading is discovered, and, because of centralized control, the grading tends to remain uniform in all markets. Second, official grading is generally more reliable. The grading is performed by persons who are specialists in this field of endeavor and who are less affected by external influences than association inspectors. Grades obtained under these circumstances are certainly preferable as a basis for paying farmers, for educational work among members, and as a basis for sale. This point is well illustrated by the attitude of strawberry buyers in the central wholesale markets, 70 percent of whom indicated that they preferred official to association inspection at shipping points and only 16 percent of them looked upon official inspection with disfavor.

Two kinds of official inspection are generally offered. The first kind provides for inspection of cars after they are loaded and a certificate is issued giving the grade and condition of the fruit in the carload as a whole. The second kind usually deputizes local inspectors to inspect each crate of strawberries as they are received. A certificate is then issued showing the grade and condition of the fruit in each crate. This latter type of inspection is probably preferable for Kentucky conditions as it avoids the necessity of association inspectors. Carlot inspection is better adapted to wholesale markets.

Inspection of strawberries at central markets is often requested by buyers but such inspection does not make shipping point inspection unnecessary or inadvisable for cooperative marketing associations. Inspection is called for by dealers in order to provide information, regarding the quality and condition of strawberries, that may assist them in selling or that may provide a basis for making adjustments in prices paid shippers or for handling claims against transportation companies. Shipping point inspection, on the other hand, provides shippers with similar information that may enable them better to handle any

of these various shipping and selling situations that may directly concern them.

HANDLING SURPLUS BERRIES

Burdensome supplies may exist in strawberry marketing from several causes. They may result from a moderate acreage with heavy yields, from large acreage with average yields, from poor distribution among markets, or from heavy pickings in several producing areas at the same time. These various situations are not easily controlled by cooperative marketing associations in the present decentralized organization of cooperative marketing, altho some progress has been made by cooperative associations acting independently.

Two aspects of the problem of surplus, with which individual associations can deal most effectively, have been given much consideration by strawberry growers. First, seasonal surpluses and, second, distribution of fruit among central markets.

Seasonal surpluses have been handled in part by the selection of varieties that mature for marketing at the most opportune time, and, in part, by the disposal of low grade strawberries for preserving and other uses that keep them from directly competing with berries of good quality. Some headway has been made in the selection of varieties but progress in this direction has been necessarily slow as it involves a better understanding among growers of the relative merits of different varieties for quality and marketability as well as for maturity. Moreover, after varieties are once selected, weather in any season may disrupt the best calculations.

Some progress also has been made in the disposal of low grade berries. Efforts to find special outlets for low grade fruit have thus far been restricted to sale to local wholesale and retail outlets for local consumption and sale to itinerant jobbers who seek disposal in nearby retail markets or at factories that manufacture fruit products in neighboring cities. Substantial quantities are still shipped to central markets, however. In 1929, they amounted to seven percent of total shipments and as much as 23 percent of the shipments of an individual association.

Whether these quantities of low grade berries create a serious marketing situation is dependent upon market conditions. In years of low production or high average quality, they are less significant than when market receipts are large or average quality low. In 1929, the shipments of low grade berries were a small proportion of a relatively small crop and did not create a particularly burdensome supply. Nevertheless the diversion of these berries to special uses or markets would doubtless have been a protection to the reputation of the associations and would have maintained higher prices for the large part of the crop for which there was the best market demand.

The unsatisfactory results that have thus been obtained, with frequent unprofitable shipping and with inadequate and independable local markets, have caused growers to turn to fruit products plants in their consideration of marketing low grade strawberries. Manufacturing plants, owned and operated by cooperative associations, appear to offer a ready market for surplus and low grade strawberries, but leaders in the cooperative strawberry movement have rightly been cautious in starting any undertakings of this kind in view of the large investment required, the absence of other related products to share in carrying the overhead cost of operation, the uncertainty of markets for strawberry products, the dearth of information relating to new processes of freezing and preserving fruits, and the nature of the management of such plants. Plants owned and operated by groups of cooperative strawberry marketing associations that are conveniently located to use them would be a solution of some of the objections to plants operated by individual associations, altho the cooperation among associations that would thus be required would create problems of finance and management that can only be handled satisfactorily when individual co-operative associations are well established. Altho few cooperative associations in Kentucky are ready for such an undertaking at the present time, it is nevertheless a method of handling seasonal and other surpluses which merits careful study.

DISTRIBUTION OF SHIPMENTS

The large number of wholesale markets available to straw-

berry shippers in Kentucky and the perishability of the product, make the distribution of shipments among markets one of the most important management problems of cooperative strawberry marketing associations. In the area of Illinois, Indiana, Ohio, Michigan, Western New York, Pennsylvania and West Virginia, are 70 cities, each with a population in excess of 70,000 persons, that may be considered the logical markets for strawberries grown in Kentucky. Strawberries produced in this State were shipped to only 26 of these cities, or 37 percent of the total number of cities, in 1929. The remaining cities obtained their strawberries either from other producing areas, or from the larger markets to which Kentucky berries were shipped. Strawberries were also shipped to markets in other states, as Massachusetts, Connecticut, Iowa, Wisconsin and Canada (See Table 3.), but the quantity received by such markets was generally small because of the competitive advantages of other producing areas.

TABLE 3. States Into Which Strawberries from Eleven Associations Were Shipped[10] in Carload Lots, in 1929, with Number of Cars.

Ohio	238
Illinois	200
Michigan	174
Pennsylvania	60
Indiana	58
New York	52
Massachusetts	33
West Virginia	9
Connecticut	9
Kentucky	8
Wisconsin	6
Iowa	2
Canada	2

Chicago, Cincinnati and Detroit were the chief markets for Kentucky shipments. In 1929, these cities received 40 percent of all strawberries marketed by the eleven marketing associations studied. Their transportation facilities, large populations, and wholesale distributive organizations provided favorable market outlets for large quantities of fruits. (See Table 4.)

[10] Data were obtained for 79% of all shipments.

The relative importance of these various markets changes from year to year, and in any season the distribution among markets is dependent upon the prevailing competitive conditions. Under ordinary conditions, the peak of strawberry marketing is reached in Missouri and Maryland at the time Kentucky berries are marketed in largest volume, generally the last part of May, but unusual weather may disturb this normal situation and create competition instead with earlier producing sections as Arkansas, Eastern Tennessee and Western Tennessee, or marketing of the Kentucky crop may be delayed so that it must compete with later producing regions. (See Table 5 for data of shipments, also Figure 2 for competition with Missouri and Maryland in 1929.)

TABLE 4. Cities Which Received Three or More Carloads of Strawberries from Eleven Associations, in 1929, and Number of Carloads.

Chicago, Ill.	192	Springfield, O.	8
Cincinnati, O.	132	Milwaukee, Wis.	6
Detroit, Mich.	118	New London, Conn.	5
Pittsburg, Pa.	45	Utica, N. Y.	5
Grand Rapids, Mich.	42	Battle Creek, Mich.	5
Cleveland, O.	40	Toledo, O.	5
Columbus, O.	28	Lafayette, Ind.	5
Boston, Mass.	23	Logansport, Ind.	4
Rochester, N. Y.	21	Lansing, Mich.	4
Ft. Wayne, Ind.	17	New Haven, Conn.	4
South Bend, Ind.	16	Rockford, Ill.	3
Youngstown, O.	16	Vincennes, Ind.	3
Buffalo, N. Y.	15	Kalamazoo, Mich.	3
Indianapolis, Ind.	10	Altoona, Pa.	3
Springfield, Mass.	9	Albany, N. Y.	3
Louisville, Ky.	8	Elmira, N. Y.	3

The need for distribution of strawberries among markets in proportion to market requirements is further emphasized by the behavior of strawberry prices. Generally speaking, prices are highest at the beginning of a marketing season when supplies are small and demand strong. As supplies increase, prices decline but demand also becomes weaker as the marketing season

progresses; frequently even when market receipts fall off toward the close of the season, prices do not advance, in fact they seldom reach the level attained earlier in the marketing season. (See Figure 3.) Good placement of shipments among markets

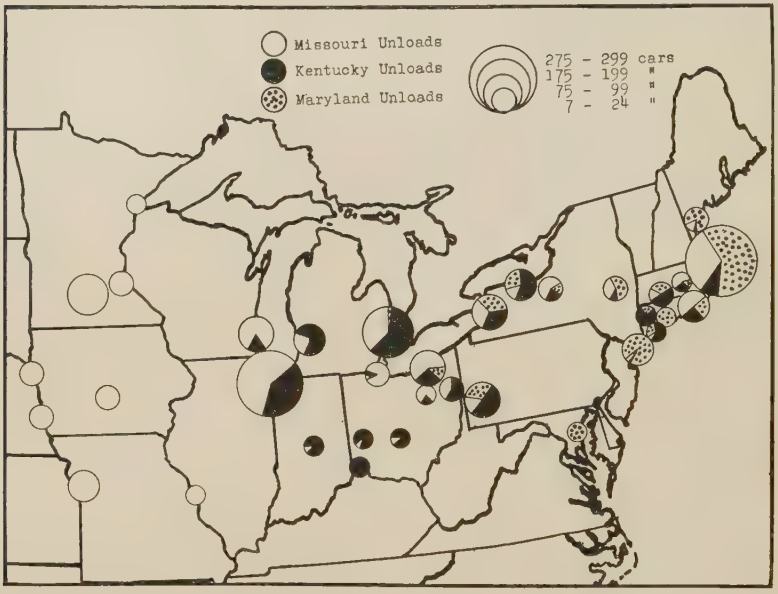

Figure 2. Unloads of Kentucky, Missouri and Maryland Strawberries, by Markets, for the year 1929.

in order to obtain stablity of prices and to avoid early price declines is, therefore, important for strawberries, since once market prices break they tend to remain at a lower level.

MARKET INFORMATION

Intelligent marketing of any product requires buyers and sellers who are well informed as to market conditions. Two types of information are necessary for this: first, the supply of a commodity enroute to, or available for sale at, markets must be known; second, it is essential to know prices and market conditions at both central markets and shipping points in order to effect good distribution. Dispatch in securing and disseminating

TABLE 5. Average Weekly Carload Shipments of Strawberries, and State of Origin.
(Years 1924–1929 inclusive)

	March	April				May				June				
	22–28	29–4	5–11	12–18	19–25	26–2	3–9	10–16	17–23	24–30	1–6	7–13	14–20	Total
Alamaba	13	23	58	118	166	140	105	63	47	16	3	*		752
Mississippi			*	8	18	24	22	9	2					83
N. Carolina				10	191	637	577	268	80	13	7	6	4	1,793
Arkansas			1	4	26	127	442	573	391	144	45	3		1,756
West Tennessee					2	52	375	461	128	5	1			1,024
East Tennessee					*	8	79	196	246	118	20			667
Va. Norf. Sec.						7	61	156	127	76	5	1		433
Missouri							3	128	458	551	489	112	11	1,752
Va. E. Shore							7	156	327	214	57	7		768
Illinois							2	32	76	71	56	20	9	266
Maryland								27	242	414	344	180	63	1,270
Central Tennessee								10	123	176	85	6		400
Kentucky								11	211	326	151	9		708
Indiana									*	7	30	19	4	60
Delaware									28	157	248	191	73	697
New Jersey										14	63	75	28	180
Total	13	23	59	140	403	995	1,673	2,090	2,486	2,302	1,604	629	192	12,609
Percent from Kentucky								0.53	8.49	14.16	9.41	1.43		7.77**

* Average of less than half a car.
** For season of Kentucky shipments only.

market information also is essential in the case of perishable products like strawberries.

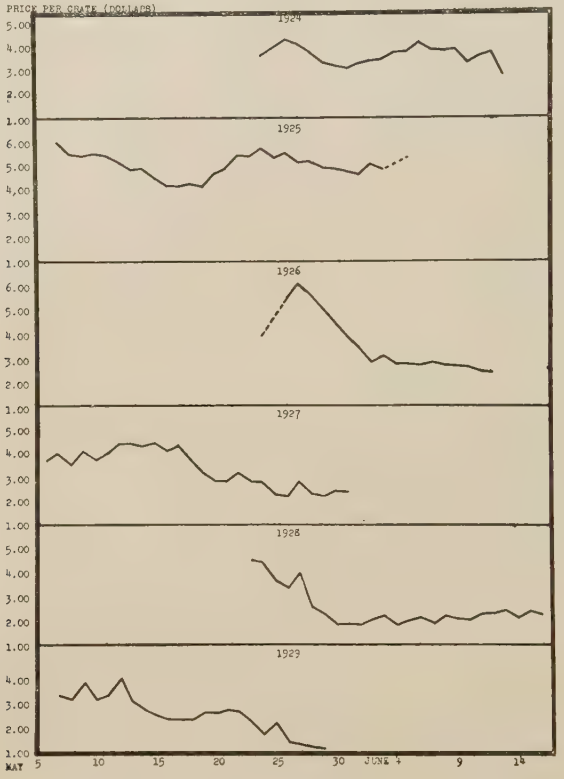

Figure 3. Daily Average Prices Received for Strawberries by Four Cooperative Strawberry Marketing Associations, from 1924 to 1929.

The managers of most cooperative associations included in this study made arrangements with dealers in important markets to send a telegraphic statement of market conditions and quotations each morning, and thus obtained the latest possible market information. One manager arranged with a dealer in Chicago, Pittsburg and Buffalo for such information, believing that these markets were representative of their respective districts. Many supplemented this source with data obtained by telephone messages from buyers. In most instances, more com-

plete information was obtained by the daily reports issued by the United States Department of Agriculture. These reports were generally received on the day following the market for which they were issued but they supplemented other sources satisfactorily by providing a comprehensive summary of the market.

Managers located in the same producing area also supplemented information from central markets by keeping in close touch with each other by telephone. They were thus able to secure additional news on shipments, prices and other information that managers may have agreed to exchange with each other. At the same time, this practice of exchanging information resulted in greater economy of market news facilities. Such arrangements have not been entirely satisfactory, however, because managers occasionally use the information thus obtained to their own advantage and to the disadvantage of the other associations, as by using it to exploit the market of a competing association.

SELLING PRACTICE

Strawberries were sold chiefly F. O. B. shipping point, and on consignment. The method of sale varied considerably between associations. Some associations sold entirely on an F. O. B. basis while other associations used the consignment method only. F. O. B. sales tended to predominate and were preferred by most shippers as prices were thought to be more certain, and payment was quicker when buyers permitted drafts to be drawn against them and assumed the risks of shipment. Buyers generally favored consignment as less risk and lower costs were thereby incurred. It is not surprising, therefore, that the relative importance of these methods of sale varied under different marketing conditions, and that they depended largely upon the relative strength of buyers and sellers and upon market risks. With small supplies of fruit or high average quality, shippers' preference tended to prevail whereas buyers were better able to dictate consignment when fruit is abundant and low grade.

F. O. B. sales were generally made to itinerant buyers who visited the local markets and who purchased fruit for their own account or on a brokerage basis for buyers located in a distant market. Occasionally, such persons were representative of commission firms in distant markets who merely solicited consignments, altho more often commission firms limited their personal solicitations to a visit by a representative at the opening of a marketing season in any district from which they wished to obtain business. In case business relations of long standing had existed between a cooperative association and a wholesale firm, the renewal of relations was often satisfactorily established by an annual visit from the wholesale buyer, and business conducted by telephone, telegraph or correspondence either on an F. O. B. or consignment basis. Such arrangements had the advantage of low cost of selling.

Cooperative associations occasionally have discovered, however, that sales thru brokerage houses are advantageous. Sometimes better prices more than offset additional costs, or the trade associations of dealers in the central markets may make sale thru brokers imperative. Sometimes, where brokers have better financial rating than the other middlemen in the market, associations can make more satisfactory collections by selling thru brokers than would otherwise be possible.

POOLING

Mingling the strawberries of different members of a co-operative association for sale is a form of insurance in that it eliminates the possibility of some members of an organization obtaining much lower prices than others for products of similar quality sold during the same period. It also has the advantages of reducing the amount of capital required for marketing and shifting the risks of marketing from the association to the members.

Car pools, daily pools, and seasonal pools are used by various associations in Kentucky. The car pool was used by six of the eleven associations studied in 1929. Returns are made to each member on the basis of quantity and quality of product

contributed and prices received for an individual shipment in this plan of pooling. This method works well for groups of farmers who have small quantities to market and who are informally organized. Settlement is made easily and with dispatch. Returns to growers reflect prices received for fruit in the central market less costs of marketing. The transaction is closed with payment for the strawberries contributed to a car shipment and a grower is then free to combine with other growers for later shipments. Undoubtedly such conditions in the early history of the strawberry industry largely explain the present predominance of the car pool in Kentucky.

As production in any community increases, the simple arrangements and informal organizations described above are no longer satisfactory. Employment of a manager to manage the business, incorporation to localize financial responsibility, and adoption of a plan of selling suited to the new conditions become necessary. In the case of selling, the principal problem is to adopt a plan of settlement that avoids discrimination among members and that is efficient for purposes of administration. The car pool meets neither of these requirements well, first, because the returns received by an individual grower are dependent upon the returns of individual shipments, and, second, because a large amount of clerical work is required in settling with growers.

The disadvantage of a car pool is well illustrated in Figure 4 which shows the daily range in prices received by a representative association during the 1929 marketing season. Prices varied widely on different days but on only one day were all shipments of like grade sold for the same price and the range varied up to more than $2.00 per crate. The largest range for this association was on May 22, when seven carloads sold for $3.20 per crate, two carloads for $2.45, one carload for $1.50 and one carload for $1.10. Growers whose strawberries were by chance marketed in any of the four carloads which were sold for less than $3.20 were obviously discriminated against for reasons over which they, and presumably the management, had

no control, as the association here illustrated paid farmers on the basis of individual shipments.

The daily pool used by three associations and the seasonal pool used by two associations avoid this weakness of the car pool, altho with varying degrees of success. Reference to Figure 4 will show how different the prices paid to different

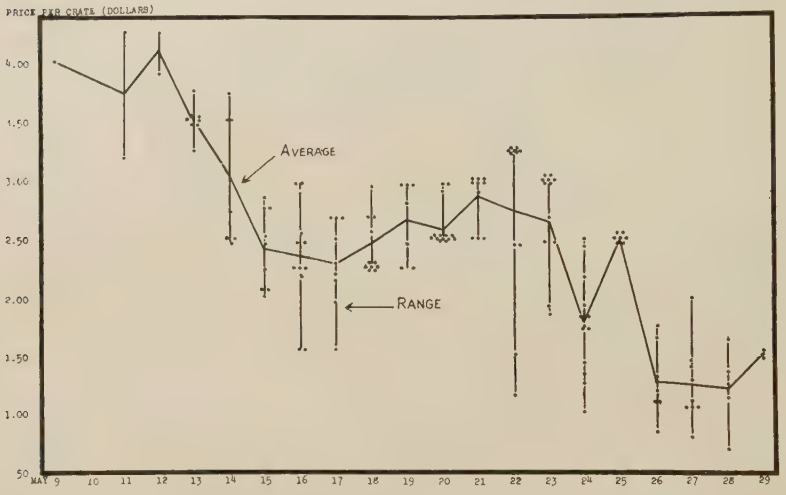

Figure 4. Daily Average and Daily Range in Prices Received for Strawberries by a Representative Strawberry Marketing Association, in 1929.

growers would have been if daily average prices instead of car prices had been paid and the chance variation in daily prices thus eliminated. On May 22, it would have resulted in an average price of $2.75 per crate, or 45 cents less per crate for seven shipments, 30 cents more per crate for two shipments, $1.25 more per crate for one shipment, and $1.65 more per crate for one carload.

The seasonal pool eliminates the variation in prices received by growers that results from the variation in daily shipments, like the daily pool; in addition, it eliminates variations in payments due to differences in daily prices received for strawberries, by paying members on the basis of average prices received for berries of similar pack and quality for the entire

season. A study of the prices received by various marketing associations indicates clearly that much of the variation in the prices received by managers results from fortuitous circumstances in marketing. The seasonal pool avoids any discrimination among growers such as may be caused in daily pools by these chance daily variations in prices; furthermore, it has the advantage of requiring less clerical assistance to keep records than either a car pool or a daily pool.

The chief disadvantage of the seasonal pool is the possible inequitable distribution of returns among members as a result of marketing strawberries by members at different rates at different periods of the marketing season. A careful study of Figure 3 (p. 280) shows that strawberry prices are generally high at the opening of the season, low at the peak of marketing, and somewhat higher toward the close of the marketing season. Unless all members begin and stop harvesting at the same time and market the same quantities during the season there may, therefore, be substantial discrimination in favor of some growers and to the disadvantage of others.

In view of the diverse conditions under which strawberries are produced and marketed, it is obvious that no one standard pooling period is best suited to all cooperative marketing associations. A period that is best for one community may not be well adapted to another. Generally speaking, however, it appears to the authors that a pooling period shorter than a season and longer than a day, perhaps a one- or two-week period, has much merit under conditions prevailing in most Kentucky communities. It reduces those risks of variations in prices between shipments and between days, that are incurred in car and daily pools, and it gives members assurance of obtaining prices which more nearly compensate them for cultural practices, soil, location or other factors which affect the time that strawberries are marketed, than does a seasonal pool. More clerical work will be required than for seasonal pooling, altho somewhat less than for car or daily pools. This consideration is relatively unimportant, however. It is much more important to make certain that each member is paid prices which cor-

respond to those prevailing in the central markets when his product is sold.

COOPERATION AMONG COOPERATIVES

As cooperative strawberry marketing associations have many problems in common, the establishing of a central cooperative organization merits serious consideration. Thus far relations among the associations of Kentucky have been very informal and their purpose has been almost wholly restricted to the exchange of market information. There are many other problems which cooperatives share mutually, however, and which, altho not now sufficiently pressing to stimulate joint action, are nevertheless sufficiently important to merit careful study as to the possibilities of cooperative endeavor.

Among other matters to which such a central body could give attention are better cultural and handling methods, the location and development of market outlets, the handling of claims and other transportation problems, the standardization of packages and grades, the routing of consignments and perhaps the supervision of sales. There is slight prospect of a satisfactory solution of the surplus and low grade berry problem except by disposal through a formal organization of marketing cooperatives. Still another service which a central organization could render is that of research in market practice. Whereas the present associations cannot conduct research, a larger organization could study such problems as costs of operation, tendencies in distribution, market prospects and other problems, at little cost to an individual cooperative unit. A thorough analysis of this kind would be highly beneficial to the industry.

Not all cooperatives will find it expedient to join other associations, to relinquish any of their activities or to cooperate in offering new services. As has been pointed out in previous sections of this bulletin, cooperative strawberry marketing associations operate with varying degrees of efficiency. The members of some associations may, therefore, prefer to continue as independent marketing units. Personalities, community pride and other factors may also deter formal cooperation in a central organization. For these and other reasons, any overhead

cooperative organization that may be planned may be expected to develop slowly and assume responsibility for marketing services only as there appears to be real opportunity to render services more efficiently than they are given by existing organizations. Development in this manner has the advantage of slow growth as well as the assurance that a local cooperative unit, which will serve as contact with members in each community and assume responsibility for cooperative marketing problems of a local character, will be provided for within the larger cooperative marketing organization. Cooperative associations may often make arrangement for selling or other services with other cooperative organizations when first organized more easily than after they become well established.